Study of Iowa's Current Road Use Tax Funds (RUTF) and Future Road Maintenance and Construction Needs

A report to the Iowa Legislature, per Section 85, House File 868, 81st General Assembly

Prepared by Iowa Department of Transportation

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Introduction

The 81st General Assembly of the Iowa legislature, in Section 85 of House File 868, required the Iowa Department of Transportation (Iowa DOT) to conduct a study of current Road Use Tax Fund (RUTF) revenues, and projected roadway construction and maintenance needs. Specifically the legislation requires the following:

"The state department of transportation shall review the current revenue levels of the road use tax fund and its sufficiency for the projected construction and maintenance needs of city, county, and state governments in the future. The department shall submit a written report to the general assembly regarding its findings on or before December 31, 2006. The report may include recommendations concerning funding levels needed to support the future mobility and accessibility for users of Iowa's public road system."

Consistent with recent actions involving the review and analysis of all public roadways in the state, the Iowa DOT elected to conduct this study with input from city and county officials. These officials represent the 'three legs of the stool' critical to maintain and operate the public roadway system in Iowa. Special acknowledgement is given to the following representatives who provided vital input into the development of this report.

Greg Reeder, Council Bluffs city engineer Jeff May, Knoxville public works director Royce Fichtner, Marshall County engineer Tom Stoner, Harrison County engineer

Iowa DOT also acknowledges Scott Newhard (Associated General Contractors of Iowa) and Dave Scott (Iowa Good Roads Association) for facilitating the discussions between the Iowa DOT, city and county officials.

Iowa DOT consulted with other groups with strong interest in Iowa's transportation system. A complete list of groups and associations which provided input is included in Appendix A.

Executive Summary

The 81st General Assembly of the Iowa legislature, in Section 85 of House File 868, required the Iowa Department of Transportation (Iowa DOT) to conduct a study of current Road Use Tax Fund (RUTF) revenues, and projected roadway construction and maintenance needs. With input from Iowa's cities, counties and other interested groups, the Iowa DOT completed this report for submittal to the legislature.

Findings and Recommendations

As with the rest of the nation, Iowa is on the verge of a transportation crisis. This is the result of flattening revenues, dramatically increasing construction costs, aging infrastructure, increasing usage, and deferred maintenance. While the system is not yet broken, it is at the tipping point where the cost to recover will grow exponentially if action is not taken now. As documented in this report, Iowa is already facing a \$27.7 billion shortfall in the next 20 years.

The \$27.7 billion shortfall represents an ideal level of investment which cannot be fully funded in light of the needs that exist for all levels of government and the services they provide. However, there are critical needs that must be met to avert a transportation crisis. The Iowa DOT worked with city and county officials to identify those improvements that would provide the greatest benefit to preservation of the system as well as those improvements that would provide the greatest economic development opportunities.

At the state level, critical needs exist on the interstate and Commercial and Industrial Network (CIN). These systems are vital to the economic growth and prosperity of Iowa. From the input received during the development of this study, and received by the Iowa Transportation Commission, it is clear that to maintain and grow Iowa's economy significant investments on the interstate and CIN are necessary to provide all regions of Iowa with access to high-quality transportation, which is reliable and efficient. Absent additional funding, it will either be impossible or take a very long time to complete improvements on corridors such as U.S. 20, U.S. 30, U.S. 34, U.S. 61, U.S. 63, U.S. 169, and many others.

At the county level, the large number of structurally deficient bridges and deteriorating conditions on the Farm-to-Market Road System are impacting the efficient movement of people and goods. If these needs are not addressed, more bridges will have to be closed and roads vital to the movement of agricultural products will deteriorate, impacting local, regional and statewide economies. These roadways and bridges are even more important with Iowa's burgeoning biofuels industry.

Cities are facing issues similar to the Iowa DOT and counties, with deteriorating pavement conditions, deferred/reduced maintenance, and the inability to meet the demand for new and/or expanded roadways. The highest priority needs for Iowa's cities are a backlog of maintenance needs critical to supporting and encouraging economic development.

Through the development of this report, the Iowa DOT, city and county officials reached consensus on the following points:

- Existing RUTF revenues should continue to flow through the existing distribution formula, and any natural growth in those revenues should also continue to flow through the existing distribution formula.
- If new funding sources are created or existing funding sources increased, the new revenue should be placed in a new fund.
- If a new fund is created, it should be distributed through a new formula (60 percent to the state, 20 percent to the cities and 20 percent to the counties) and targeted to particular needs that best enhance and support Iowa's rural and urban economies.
- The minimum amount of new funding needed today to meet the most critical needs to sustain and enhance Iowa's economy is \$200 million per year.
- Implementation of funding increases can be phased in over two years to better manage the impact on users.
- Any additional new revenue generated beyond \$200 million should be distributed through the existing RUTF distribution formula.
- The additional revenue targeted to critical needs in Iowa will result in improvements that have the greatest impact on sustaining and enhancing Iowa's economy; however, it still falls well short of meeting all the needs that exist on Iowa's public roadway system. On a system-wide basis, it is expected that even if the recommended funding level is achieved, pavement and bridge infrastructure will continue to worsen, although at a slower pace. It is also expected that on low-volume county roads, road and bridge conditions will continue to worsen resulting in more closed bridges, bridges with load restrictions and roads being classified as area service 'b' or area service 'c.'

It is important to note that the points listed above are all inter-related and in their entirety result in consensus among Iowa DOT, city and county officials. Therefore, it is important that the recommendations are evaluated as a package of recommendations, rather than a list of individual recommendations for consideration.

Based on the findings of the study, the following actions are recommended and endorsed by the Iowa DOT, Iowa County Engineers Association, Iowa State Association of County Supervisors, Iowa State Association of Counties, and Iowa League of Cities:

1) Create a Transportation Investment Moves the Economy in the 21st Century (TIME-21) Fund

Additional investment in Iowa's public roadway system is vital to sustain and grow our state's economy. This new fund will target new revenue to those areas particularly important to Iowa's economy.

TIME-21 funding for the Primary Road System will be spent on the interstate and CIN system. This will permit continued development of corridors critical to connect Iowa with regional, national and international markets. Further improvements will increase

efficiency and safety resulting in economic growth to all regions of the state. With additional revenue from the TIME-21 Fund to help meet the needs of the interstate and CIN, a greater amount of existing RUTF revenue becomes available to address needs on the rest of the Primary Road System, which otherwise would not be addressed for many years.

At the county level, funding will be targeted heavily toward replacing deficient bridges. These bridge deficiencies hinder the efficient movement of agricultural products and jeopardize medical and fire services in rural Iowa. Enhancements to the Farm-to-Market Road System will also be targeted. This system of county roads serves a key role in the support and development of Iowa's value-added agriculture economy. Improvements to the Farm-to-Market Road System are needed to assure efficient movement of products to market and, in particular, value-added biofuel industries. The Farm-to-Market Road System is also taking on an increasing role in support of the commuting of rural Iowans to jobs in regional and metropolitan centers.

At the city level, each community will assess its own unique needs. Many will target funding toward sustaining the overall street network. This will be accomplished by directing resources first to cost-effective maintenance. This will allow cities to budget other local, state and federal funds to streets that are critical to economic growth and development. Reconstruction, expansion and safety will be priorities after maintenance needs are addressed.

2) Enact Changes to the Iowa Code that Generate a Minimum of \$200 Million in New Revenue for the TIME-21 Fund

The TIME-21 Fund will ultimately require a minimum of \$200 million per year of funding. This funding will be generated using a mechanism or mix of mechanisms described in the "Options for Addressing Funding Shortfall" section of this study. Any funding generated beyond the \$200 million necessary for the TIME-21 Fund should be distributed via the existing RUTF distribution formula.

Consistent with past RUTF revenue increases, it is recommended any increase in revenue be phased-in over two years.

3) Establish a 60 Percent State, 20 Percent City and 20 Percent County Funding Distribution Formula for the TIME-21 Fund

To address critical needs and to maximize the impact of additional revenues, the TIME-21 Fund should be distributed as follows:

- 60 percent to the state for use on the interstate and CIN;
- 20 percent to cities, on a per capita basis, via the Street Construction Fund of the Cities to sustain and improve the Municipal Street System; and
- 20 percent to counties via the Secondary Road Fund for use on all secondary road bridges and maintenance and construction improvements on the Farm-to-Market Road System. The Secondary Road Fund is distributed to counties using a formula based on area, miles of road, vehicle miles of travel, rural population, and length of bridges.

4) Continue Evaluation of Alternative Funding Mechanisms

The alternative funding mechanisms evaluated as part of this study, but not adopted by the legislature as funding sources, warrant additional study. For example, the per-mile user fee, which is not technically possible now, may be the best solution to assess user fees in an equitable manner as the country eventually moves toward alternative-fueled vehicles. The Iowa DOT should continue to study alternative funding sources and report at least every five years to the legislature on the advantages and disadvantages, and viability of alternative funding sources.

5) Perform Regular Reevaluation of Needs and Revenues and Report to the Legislature

As documented in this report, there are many issues impacting the Iowa DOT's, cities' and counties' ability to address the needs of the public roadway system. These issues include the rapid changes in construction costs, level of all sources of funding, rising volume of freight movements, increasing ethanol/biodiesel production, changing commuting patterns, aging population, and many others. As a result of this dynamic environment, it is prudent to reevaluate, on a regular basis, the long-range maintenance and construction needs of the public roadway system, and the ability of existing RUTF revenues (including new TIME-21 Fund revenues) to meet those needs. The Iowa DOT, in consultation with cities, counties and other interested parties, should be directed to conduct a study similar to this one at least every five years and provide a written report to the legislature summarizing the study.

Absent additional revenue for the public roadway system, Iowans can expect a dramatic decrease in pavement and bridge conditions in the coming years. In addition, congestion in and around urban areas and along much of the interstate (rural and urban) will increase significantly. Finally, corridor improvements on the CIN will not be addressed. All of these impacts to the public roadway system end up damaging Iowa's economy. Transportation costs will increase for both the public and businesses and opportunities for economic development will be lost to other states.

Background

As part of the development of this report, many aspects of transportation were analyzed in detail. The results of that effort are in the full report and are summarized below.

Iowa's Public Roadway System Description

The public roadway system in Iowa consists of nearly 114,000 miles of highways, roads and streets, and almost 25,000 bridges. The jurisdictional responsibility of those roads is described along with information on mileage and travel for each system. Table 1 is a summary of the systems.

Table 1 - Mileage and Vehicle Miles of Travel (VMT) by System

						% of Total
		% of	2005 Total		2005 Large	Large
	Mileage*	Total	VMT	% of Total	Truck VMT	Truck
	(as of January 1, 2006)	Mileage	(1,000,000s)	VMT	(1,000,000s)	VMT
Primary	9,372.66	8.2%	19,208	60.8%	2,491	88.3%
Secondary	90,075.12	79.2%	5,481	17.4%	286	10.1%
Municipal	14,338.75	12.6%	6,879	21.8%	45	1.6%
Total	113,786.53		31,568		2,822	

Source: Iowa DOT - Office of Transportation Data

Funding

Iowa's public roadway system is supported by revenue through three major sources —federal, state and local governments. Federal funding is primarily generated from federal fuel tax and used for construction improvements. In Federal Fiscal Year (FFY) 2007, the state of Iowa is expected to receive \$306 million in federal funding, with \$205 million allocated to the state and \$101 million allocated to cities and counties.

State revenues for Iowa's public roadways come from the Iowa Road Use Tax Fund (RUTF). The RUTF consists of revenues from fuel tax, registration fees, use tax, driver's license fees, and other miscellaneous sources. In FY 2007 it is estimated the RUTF will receive approximately \$1.1 billion, approximately 40 percent coming from fuel tax, 36 percent coming from registration fees and 20 percent coming from use tax. After some off-the-top allocations for programs such as Revitalize Iowa's Sound Economy (RISE), motorcycle education, Living Roadway Trust Fund, and state park and institutional roads, Iowa's RUTF is distributed by formula to the state for use on the Primary Road System (47.5 percent), to counties for use on the Secondary Road System (24.5 percent) and Farm-to-Market Road System (8 percent), and to cities for use on the Municipal Street System (20 percent).

Cities and counties also receive funding for their roadways from local revenue sources. Typical sources include property taxes, local option sales tax, tax increment financing districts, bonding (primarily for cities), and assessments. The amount of local revenue each city and county receives varies based on local taxing decisions.

Importance of Transportation

An efficient transportation system is essential for the future economic health of the state. Improvements to our public roadway system lower costs for producers and consumers, and make Iowa more attractive in a highly competitive market for jobs and industry. Failure to maintain our public roadway system will result in lost jobs and opportunities for economic development to neighboring states. Transportation investments support economic development, our quality of life, protect our environment, and enhance safety.

^{*} This table and report do not include the small amount of mileage within Iowa's parks and institutions.

Factors Impacting Transportation

There are many factors impacting transportation in Iowa and the nation. All of these factors are resulting in an increase in maintenance and construction needs on Iowa's public roadway system. The factors include increasing travel, increasing freight movements, changing demographics, increasing ethanol/biodiesel production, increasing construction/maintenance costs, decreasing pavement and bridge conditions, and flattening or reduced funding levels. To address these factors the Iowa DOT, cities and counties have all taken steps to increase efficiency and reduce administrative costs.

Evaluation of Future Needs

For the purposes of this report, public roadway system needs were estimated over the 20-year period from 2005 through 2024. The 20-year projected needs for Iowa's public roadway system are \$67.2 billion. The Primary Road System has total needs of \$27 billion, the Secondary Road System \$23.4 billion and the Municipal Street System \$16.8 billion.

The \$67.2 billion in needs of Iowa's public roadway system represents the total cost to address all deficiencies that exist now or are forecast to exist in the next 20 years. This does not take into account the fact that some of the needs have a cost that exceed the benefits to the state. In an attempt to evaluate the rate of return of different improvement types and recognizing the needs will far exceed available revenue over the next 20 years, an effort was made to prioritize needs based on minimum thresholds for preservation of the system and then the economic benefits of different types of improvements on roads with different traffic levels. The full report documents the prioritization of needs among the state, cities and counties.

Evaluation of Future Revenues

Based on historic trends and an analysis of how those trends will change in the future, federal, state and local revenues were forecast for the next 20 years. From 2005 to 2024, the Primary Road System is forecast to receive \$15.2 billion, Secondary Road System \$10.9 billion and Municipal Street System \$13.4 billion. This totals \$39.5 billion, which is \$27.7 billion short of the \$67.2 billion in estimated needs.

Needs versus Revenues

The estimate of future revenues will allow all maintenance and administration needs (category 1) to be met, and most of the next highest priority of needs, which addresses pavement and bridge preservation needs on higher volume roads (category 2). To fully address the higher-volume preservation needs the most critical needs of the next priority category (category 3) an additional \$200 million per year of funding is needed. Of the unfunded category 2 and category 3 needs that can be addressed with \$200 million per year of additional funding, 70 percent are on the Primary Road System, 14 percent on the Secondary Road System, and 16 percent on the Municipal Street System. Recognizing that this is a significant shift from the existing RUTF distribution percentages and that

each jurisdiction prioritizes their needs differently, the following distribution of additional RUTF revenues is proposed:

- State of Iowa Primary Road System: 60 percent
- Counties Secondary Road System: 20 percent
- Cities Municipal Street System: 20 percent

Options for Addressing Funding Shortfall

Table 14 is a summary of existing RUTF revenue sources and options for generating increased revenue. Table 15 is a list of revenue mechanisms that are not currently utilized, but could be implemented to generate additional RUTF revenue.

Table 14 - Current RUTF Revenue Sources and Increase Options

	1 able 14 – Current ROTF Revenue Sources and 1	nereuse options	
Type of Financing	Description	Advantages	Disadvantages
Fuel Tax	Cents per gallon tax on motor fuels, including some alternative fuels Option A to Increase Revenue: Increase per-gallon tax on motor vehicle fuels equally for gasoline, gasohol and diesel based on existing rates of 21.0 cents per gallon for gasoline, 19.0 cents per gallon for gasolol and 22.5 cents per gallon for diesel (this assumes the gasohol subsidy will be extended beyond its 6/30/07 sunset) Each additional cent generates approximately \$22 million to the RUTF	Collection and administration process already in place Generally proportional to system usage	Increased fuel efficiency results in lower revenue Higher fuel prices lead to reduced drīving and reduced fuel tax collections Fees are fixed and do not adjust for inflation
	Option B to Increase Revenue: Adjust fuel tax annually based on an inflation index (such as the Consumer Price Index) Additional revenue depends on rate of inflation. For example, a 3 percent increase in the Consumer Price Index applied to current fuel tax rates would generate an additional \$13 million annually.		iiiiatioii
Vehicle Registration	Fees charged to register and license vehicles and trailers Fee Schedule for Automobiles, Mini-Vans and Sport Utility Vehicles Fee = 1 percent of value + \$0.40 x Weight 100 • < 5 model years old: 75 percent of value component is applied • 6 model years old: 50 percent of value component is applied • 6 model years old: \$35 (1994 and newer model year) • The fee schedule varies based on age, type of vehicle and other factors for older model year vehicles Fee Schedule for Pickups (all trucks <= 3 tons) • < 10 model years old: \$65 per year • 11 to 13 model years old: \$55 per year • 14 to 15 model years old: \$45 per year • >15 model years old: \$35 per year Option A to Increase Revenue: Increase the registration fee for pickup trucks making it equivalent to automobiles (i.e. vehicle weight and value). It would generate approximately \$57 million annually to the RUTF, if applied to all pickup trucks currently registered at 3, 4 and 5 tons. If weight-value adjustment applies only to model year 2009 and later pickups (phased in approach), the additional revenue to the RUTF is projected as follows: • < Y 2008: \$10 million	Collection and administration process already in place Equitable for cars	Not proportional to system usage Higher administrative and enforcement costs Not equitable for pickups Encourages retention of older vehicles

·	CY 2009: \$20 million CY 2010: \$30 million CY 2011: \$40 million Option B to Increase Revenue: Increase the minimum vehicle registration fee (i.e. \$50 minimum instead of variable minimum for autos and \$35 minimum for trucks). This scenario would generate approximately \$19 million annually in additional revenue to the RUTF.		
Use Tax on Motor Vehicles	Five percent use tax that is imposed on the sale of new and used motor vehicles and trailers Option to Increase Revenue: Increase the use tax to 6 percent, generating approximately \$40 million annually.	Collection and administration process already in place Provides revenue source based on ability to pay Proportional to cost of vehicle	Not proportional to system usage May discourage sales of motor vehicles Fluctuates with economic cycles
Driver's License Fee	A fee charged for the privilege to operate a motor vehicle \$4 per year (non-commercial)* \$8 per year (commercial)* * Does not include the one-time surcharge assessed through 6/30/08 for the driver information system update (\$3). Option A to Increase Revenue: Doubling the driver's license fee would generate approximately \$12 million annually. Option B to Increase Revenue: Institutionalize the current \$3 surcharge as an increase as of 7/1/08. It would generate approximately \$1.5 million per year, on average, beginning in FY 2009	Collection and administration process already in place Does not fluctuate with economic cycles	Not proportional to system usage

Table 15 – Potential RUTF Revenue Sources

	Table 13 – 1 delitiai	KU1F Revenue Sources	
Type of Financing Sales Tax	Description Assess sales tax on fuel purchases. A 1 percent sales tax on fuel would generate approximately \$43 million per year based on fuel prices in November 2006.	Advantages Provides a mechanism to apply local option sales tax on the purchase of fuel Requires less frequent legislative action on fuel tax because revenues will increase as the price of fuel increases	Disadvantages Requires enabling legislation Administration and collection system would need to be developed Because tax is tied to the price of fuel, the amount of tax could change significantly if fuel prices
Severance Tax on Exported Ethanol	A tax collected by the state either based on a percent of value or a volume-based fee on resources extracted from the earth that are exported out of the state. Typically charged to producer or first purchaser. Potential revenue dependent on rate set and volume exported. Assuming 65 percent of Iowa's ethanol production (1.5 billion gallons in CY 2006) is shipped out of the state, a severance tax of 1 cent per gallon would generate \$9.75 million per year.	Creates opportunity to generate revenue from sources outside of Iowa Compensates for roadway deterioration resulting from usage of system for the production of ethanol	Requires enabling legislation Administration and collection system would need to be developed Potential regulatory issues Could put the producer at competitive disadvantage

Per-Mile Tax Transportation	Tax based on the vehicle miles traveled within a state. Based on the vehicle miles traveled in Iowa in 2005 (31.6 billion), a 1 cent per-mile fee would generate \$316 million per year. Geographic areas are defined and tax	More direct measure of actual costs incurred Highly related to needs for capacity and system preservation because as travel increases, the need for capacity and preservation improvements increase, but so does revenue Low tax rate needed to fund current needs May be graduated based on vehicle size, weight, emissions or other characteristics Satisfies urgent infrastructure needs,	Requires enabling legislation Administration and collection system would need to be developed Potentially high administrative, compliance and infrastructure costs Technology needs to mature Privacy concerns
Improvement District	imposed within the area to fund transportation improvements with voter approval. Revenue potential varies	which exceed available finances Encourages state, local and private- sector partnerships	Administration and collection system would need to be developed May be seen as an equity issue
Bonds for Primary Road System Improvements	A written promise to repay borrowed money at a fixed rate on a fixed schedule. Can be limited to very specific situations, such as projects that exceed a certain dollar threshold, projects that cannot easily be phased over time (border bridges) and/or projects that can reasonably generate sufficient revenue (tolls) to service their own bond debts. Revenue potential varies.	Allows earlier and faster construction of facilities Satisfies urgent infrastructure needs, which exceed available finances Avoids inflationary construction costs	Requires enabling legislation Requires state or community to extend payments for long periods of time Does not generate new money May cost more over time due to bond interest Requires annual resources be used for debt service rather than new needs
Privatization	Long-term leasing of toll roads to private sector for up-front payment. Revenue potential varies.	Influx of one-time capital Shifts responsibility to contractor	Requires enabling legislation Administrative process needed to let, execute, contract, and monitor performance Requires high-usage corridor to be marketable; Iowa may not have any candidates Built-in toll increases Potentially higher tolls to make project profitable Requires very long-term decision that removes flexibility Very limited ability for in- state contractors to participate in construction
Tolling	Implementing fees to travel on road segments. Revenue potential varies based on length of tolled segment and toll rate, but a typical rate is 6 cents per mile.	Specific road segments/corridors generate their own revenue	Requires enabling legislation Expensive to initiate due to needed capital investment Ongoing administrative costs Requires sufficient traffic levels to generate enough revenue to pay for the costs of tolling, along with the maintenance and construction cost; Iowa may not have any reasonable corridors meeting requirements. Public resistance may lead to adjustments in travel patterns to avoid tolls There are federal restrictions in some cases

Development Impact Fees	A fee charged to developers for off- site infrastructure needs that arise as a result of new development.	Additional source of funding to off- set increased needs due to new development Places the cost of improvement on the development that caused the need	Typically a local jurisdiction fee and is difficult to apply statewide Potential negative impact on future development Can be difficult to establish and administer Can be an equity issue when costs are passed on to homeowners in the case of a housing development
Public-Private Partnerships (PPPs)	Contractual agreements formed between a public agency and private sector entity that allow private participation in the delivery of transportation projects. Revenue potential varies.	Expedited completion compared to conventional delivery methods Avoids inflationary construction costs Delivery of new technology developed by private entities Substitution of private resources and personnel for constrained public resources Access to new sources of private capital	Requires enabling legislation May be less efficient Could lead to higher tolling than under a public-only project Very limited ability for instate contractors to participate in construction